

Title (en)

DEVICE FOR HANDLING OBJECTS, USING ACOUSTIC FORCE FIELDS

Title (de)

VORRICHTUNG ZUR HANDHABUNG VON GEGENSTÄNDEN MITTELS AKUSTISCHER KRAFTFELDER

Title (fr)

DISPOSITIF DE MANIPULATION D'OBJETS PAR CHAMP DE FORCE ACOUSTIQUE

Publication

EP 2750778 A2 20140709 (FR)

Application

EP 12761665 A 20120730

Priority

- FR 1157658 A 20110830
- IB 2012053882 W 20120730

Abstract (en)

[origin: WO2013030691A2] The invention relates to a device (1) intended for handling objects (O) present in a channel (2) within a fluid (F), in particular a liquid. The device comprises: a channel (2) extending along a longitudinal axis (X), said channel (2) having a transverse section with a width (L) measured along a first transverse axis (Y) and a thickness measured along a second transverse axis (Z) perpendicular to the first, said width (L) being greater than or equal to the thickness, and said channel comprising first (3) and second (4) walls along the second transverse axis (Z); and an acoustic wave generator (10) generating acoustic waves in the channel from at least one of the walls (3; 4), said acoustic wave generator (10) operating at a frequency f that is different from a resonant frequency f0 of the channel (2) along the second transverse axis (Z).

IPC 8 full level

B01D 21/28 (2006.01); **B01D 43/00** (2006.01); **B01F 11/00** (2006.01); **G10K 11/00** (2006.01)

CPC (source: EP RU US)

B01D 21/28 (2013.01 - RU); **B01D 21/283** (2013.01 - EP US); **B01D 21/34** (2013.01 - EP US); **B01D 43/00** (2013.01 - RU);
F15D 1/00 (2013.01 - US); **G01N 35/00** (2013.01 - RU); **A61M 1/3678** (2014.02 - RU); **A61M 1/3681** (2013.01 - RU); **A61M 1/3693** (2013.01 - RU);
B01D 21/283 (2013.01 - RU); **B01D 2221/10** (2013.01 - EP US); **B01J 8/00** (2013.01 - RU); **B01J 19/10** (2013.01 - RU);
G01N 30/0005 (2013.01 - RU); **G01N 33/00** (2013.01 - RU); **Y10T 137/0391** (2015.04 - EP US); **Y10T 137/206** (2015.04 - EP US)

Citation (search report)

See references of WO 2013030691A2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

FR 2979256 A1 20130301; FR 2979256 B1 20140926; BR 112014004750 A2 20170321; BR 112014004750 B1 20210629;
CA 2846249 A1 20130307; CA 2846249 C 20191217; CN 103906555 A 20140702; CN 103906555 B 20160824; EP 2750778 A2 20140709;
EP 2750778 B1 20220831; JP 2014531303 A 20141127; JP 6356603 B2 20180711; KR 101922172 B1 20190213; KR 20140057300 A 20140512;
RU 2014107347 A 20151010; RU 2607580 C2 20170110; US 2014230912 A1 20140821; WO 2013030691 A2 20130307;
WO 2013030691 A3 20130704

DOCDB simple family (application)

FR 1157658 A 20110830; BR 112014004750 A 20120730; CA 2846249 A 20120730; CN 201280052804 A 20120730; EP 12761665 A 20120730;
IB 2012053882 W 20120730; JP 2014527758 A 20120730; KR 20147005308 A 20120730; RU 2014107347 A 20120730;
US 201214241585 A 20120730